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October 9, 2012

Mr. Andrew Barnsdale
California Public Utilities Commission
505 Van Ness Avenue
San Francisco, CA 94102

Dear Mr. Barnsdale:

San Diego Gas & Electric Company (SDG&E) is providing responses to the questions you posed in your September 13, 2012 Completeness Review letter. The original text for each item of the additional completeness review is included in bold, followed by SDG&E's response in plain text.

Summary of Proposed Project Disturbance Areas

The quantity of temporary and permanent disturbance represented by the project is presented in Section 3 of the Proponent's Environmental Assessment (PEA) and in the supplemental materials submitted by SDG&E dated August 14 and August 16. Additional information is required to fully characterize the disturbance represented by the project, as follows:

Question #1: GIS layers submitted by SDG&E show the areas of disturbance that would result from installation of the new electrical transmission line infrastructure, including areas of permanent and temporary disturbance around and associated with each pole, access road improvement areas, stringing sites, and lay down areas. As indicated by SDG&E, because many of the new poles would be installed in close proximity to the locations of existing transmission line poles and structures that would be removed, the areas of disturbance associated with pole and structure removal are largely the same as the areas of disturbance associated with new pole installation – however, this is not the case for all of the existing poles and structures that would be removed. Further GIS data confirming any areas of disturbance associated with the poles and structures to be removed is required for an accurate analysis of the impacts of the proposed project to biological and other resources. Specifically, GIS layers showing any additional disturbance associated with the removal of poles and structures that are not located in close proximity to the new poles (as listed in Table I) are required. These GIS data should primarily include areas of permanent and temporary disturbance around and associated with each of the poles and structures listed in Table I.

If these data are not available, SDG&E is requested to confirm that the maximum disturbance associated with the removal of these poles and structures would be no

greater than an area of approximately 150 feet by 150 feet (the estimated area of disturbance presented in the PEA for the installation of new poles).

SDG&E Response to Q1:

The maximum disturbance associated with the removal of poles and structures would be no greater than an area of approximately 150 feet by 150 feet. Removal of existing poles that are not located in the immediate vicinity of proposed new poles (approximately 38 poles, as outlined in Table 1 of the CPUC's September 13 letter) will be removed utilizing the existing operation and maintenance work space located at each pole site. Each existing pole is located within existing operation and maintenance work space from which current operations and maintenance activities are completed. This amount of space varies dependent upon each pole site, but typical work spaces minimally include a 15-foot diameter work space around each pole as well as existing 14-foot wide access roads where equipment can be parked. Many existing pole sites also contain maintenance work pads that are typically 35 by 70 feet in size. All of these poles are direct-bury wood structures that do not require over-excavation to be removed. The poles are cut into pieces and loaded onto a flatbed or dump truck and removed from the site. The base of the pole is either pulled out of the ground or cut off at/near the ground surface depending upon site conditions.

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Question #2: SDG&E has also submitted GIS layers showing the distribution line infrastructure that would be upgraded as part of the project. Further data describing the disturbance associated with this project element is also required for an accurate analysis of the impacts of the proposed project to biological and other resources. Specifically, GIS layers showing all disturbance associated with the removal and installation of distribution infrastructure - including areas of permanent and temporary disturbance around and associated with each pole removed or installed, access road improvement areas, stringing sites, and lay down areas - similar to those described above under 1., are required. If these data are not available, SDG&E is requested to confirm that the maximum disturbance associated with the installation and removal of distribution line poles would be no greater than an area of approximately 150 feet by 150 feet.

SDG&E Response to Q2:

The distribution line component has only undergone very preliminary engineering to this point. As such, general pole locations were identified (refer to Figure 2 within the Distribution Line Impact Analysis for the South Orange County Reliability Enhancement Project [Distribution Analysis] and associated Geographic Information Systems data). Exact pole locations have not been determined, therefore, the exact calculation of disturbance areas is also not determined. However, the maximum disturbance associated with the installation and removal of distribution line poles is anticipated to be no greater than an area of approximately 150 feet by 150 feet. Impacts to biological resources were estimated using the general pole locations from Figure 2 and the vegetation mapping included within the Appendix D of the Distribution Analysis (Biological Resources Assessment Addendum). The following areas of impact were utilized within the Distribution Analysis (refer to Section 2.4 and Table 3 within the Distribution Analysis):

- Distribution wood pole removal (approximately 40 poles to be removed) – 20-foot diameter work space
- Direct buried pole installation (Pole Nos. D1 and D6 through D39 [approximately 35 total poles]) – 20-foot diameter work space
- Foundation pole installation (Pole Nos. D2 through D5 [approximately 4 total poles]) – 150-foot diameter work space per pole grouping (poles will be installed in two groups of two [D2/D3 and D4/D5] on each side of the Interstate 5 Freeway – refer to Figure 2, Sheet 1 of 5)

The replacement distribution line (Pole Nos. D6 through D39) would have to be installed and energized prior to removal of existing lines (to minimize outage); therefore no overlap was assumed between pole installation and pole removal. It was assumed that new poles would be installed close to the existing poles.

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Question # 3: Volumes of Excavation and Fill

As indicated by SDG&E in their August 14, 2012 submittal, excavation and fill estimates for the San Juan Capistrano Substation are provided in PEA Section 3.5.3.1. Preliminary excavation and fill information for project transmission line construction was also included in the PEA, in Appendix 3-D, Detailed Construction Schedule and Vehicle Use Tables (used in the Air Quality and Traffic analysis to estimate truck trips relating to import/export of fill and construction debris). Although estimates of excavation and fill associated with transmission line pole removal and installation may be accounted for in the PEA's air quality calculations, they are also required to be presented separately, per CPUC PEA Checklist Sections 3.7.2.2, "Pole Installation and Removal," 3.7.3.1, "Trenching," and 3.7.3.2 "Bore and Jack." SDG&E's response to the deficiency letter did not provide data regarding the total volumes and types of excavated materials, soil backfill, other types of fill, and concrete that would be required for each component of the proposed project. In general terms, these data are necessary to convey the magnitude and extent of the project in terms understandable by the general public. An accounting of the full extent of excavation and fill is also required in order to evaluate the risks of impacting previously undiscovered cultural resources, excavating hazardous soils and impacting biological resources that may grow in or use these areas. This data will also be used to assess the air quality and traffic and transportation data provided in the PEA for completeness. SDG&E is requested to submit separate estimates of excavation and fill volumes associated with transmission line construction based on existing information about the project elements and engineering.

SDG&E Response to Q3:

Construction of the Proposed Project would include excavation and backfill associated with the trenching and jack-and-bore construction techniques utilized for the installation of new underground transmission and distribution lines. In addition, installation of new transmission structures would require grading activities at certain locations. The estimated volumes of excavation, backfill, and grading (cut/fill) for these construction activities are described below for each construction activity.

Trenching

Trenching operations for new transmission and distribution lines would result in approximately 9,100 cubic yards of excavated materials. Assuming the excavated material is suitable for backfill, approximately half (or 4,550 cubic yards) of this excavated material will be utilized as backfill. The remainder of the trench volume would be occupied by the new underground lines (duct packages). In addition, approximately 700 cubic yards of concrete and asphalt will be excavated as part of trenching where new transmission and distribution lines are being installed in existing paved areas (such as within Vista Montana in Transmission Line Segment 2 – Refer to PEA Figure 3-7, Sheet 5). This approximately 700 yards of material is part of the overall 9,100 cubic yards of excavated material.

Jack-and-Bore

Jack-and-bore operations for new transmission and distribution lines would result in approximately 1,200 cubic yards of excavated materials. Following the completion of jack-and-bore activities, the bore pit and receiving pit would be backfilled, most likely utilizing the

previously excavated materials. The vast majority of the excavated material (approximately 1,130 cubic yards) would be utilized for backfill following boring activities.

Grading for Structure Installation

Preliminary civil engineering indicates that site development for new transmission line structures will include a total of approximately 10,599 cubic yards of cut and 5,752 cubic yards of fill during grading activities. Preliminary grading estimates for distribution line construction are not yet available.

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Should you have any questions, please do not hesitate to contact me at (858) 654-1749 or Chris Terzich at (858) 637-3713.

Sincerely,

Mary Turley
Project Manager

Table 1. SOCRE Ground Disturbance Data

SOUTH ORANGE COUNTY RELIABILITY ENHANCEMENT PROJECT												
9/25/2012												
Structure	Permanent (SF)					Temporary (SF)	Total Disturbance (SF)	Earthwork Quantity (CY)				
	Slope revegetation (Temp bio impact)	Maintenance pad (Perm bio impact)	Clear & Grub Only (Perm bio impact)	RETAINING WALL		Previously Dist. (Regrading existing access roads - No bio impact)		Construction only (Temp bio impact)	Cut	Fill	Net Cut	Net Fill
				HT.	LEN.							
Z120040		6,843					4,418	11,261	535	0	535	
Z120041		5,914					3,584	9,498	130	157		27
Z120042		6,672						6,672	82	143		61
Z120043						6,098		6,098				
Z120044		NO WORK REQUIRED						0				
Z120045			2,625					2,625				
Z120046		NO WORK REQUIRED						0				
Z120047		5,472					1,141	6,613	494	0	494	
Z120048		497					655	1,152	17	2	15	
Z120049		8,169		15'	110'		1,519	9,688	569	296	273	
Z120050		6,487					4,054	10,541	88	151		63
Z120051		7,512					6,733	14,245	407	210	197	
Z120052 & 53			4,263					4,263				
Z120054 & 55			1,314					1,314				
Z120059		4,915		13'	110'		1,933	6,848	10	410		400
Z120063		4,067					2,750	6,817	161	39	122	
Z120065		7,395					3,967	11,362	349	54	295	
NEW POLE SOUTH			384					384				
NEW POLE		6,944					3,798	10,742	18	473		455
Z120067			5,250					5,250				
Z120068		5,352					2,008	7,360	454	3	451	
Z120069		1,465					566	2,031	45	0	45	
Z120070		10,548					5,822	16,370	276	324		48
Z120072		7,855					2,242	10,097	485	41	444	
Z120073		3,812					1,548	5,360	30	83		53
Z120074		4,831					2,292	7,123	301	15	286	
Z120075		6,041		13'	144'		1,419	7,460	9	604		595
Z120076		NO WORK REQUIRED						0				
Z120077		6,773					1,097	7,870	163	144	19	
Z120078		5,491					412	5,903	37	76		39
Z248758 & 59		12,451					2,551	15,002	370	543		173
Z120025			3,732					3,732				
Z120026		2,643					697	3,340	150	0	150	
Z120027		NO WORK REQUIRED						0				
Z120085			4,674					4,674				
Z119962			3,741					3,741				
Z248752		INCLUDED WITH Z119962						0				
Z248753		INCLUDED WITH Z119962						0				
Z248754			3,522					3,522				
Z248755			2,483					2,483				
Z119933			1,296					1,296				
Z119983			3,630					3,630				
Z119989		16,847		14'	165'		902	17,749	2,271	1,111	1,160	
Z119980		INCLUDED WITH Z119989						0				
Z24856		3,786					1,159	4,945	269	34	235	
Z248757		NO WORK REQUIRED						0				
Z120028		8,546		20'	152'		771	9,317	239	1,003		764
Z120080		11,072					3,138	14,210	1,585	25	1,560	

Table 1. SOCRE Ground Disturbance Data

Z120029			3,321					3,321				
Z120030			2,394					2,394				
Z120081	INCLUDED WITH Z120029							0				
Z120031		14,569				4,374		18,943	1,073	284	789	
Z120082	INCLUEDED WITH Z120031							0				
TOTALS	0	192,969	42,629			6,098	65,550	307,246	10,617	6,225		

Table 2. SOCRE Cut and Fill Calculations

Pole Sites		
	Cut	Fill
1	535	0
2	130	157
3	82	143
4	494	0
5	17	2
6	569	296
7	88	151
8	407	210
9	10	410
10	161	39
11	349	54
12	0	0
13	454	3
14	45	0
15	276	324
16	485	41
17	30	83
18	301	15
19	9	604
20	163	144
21	37	76
22	370	543
23	150	0
24	2271	1111
25	269	34
26	239	1003
27	1585	25
28	1073	284
Total	10599	5752

Trenching	
Vista M.	excavation
3801.6	79833.6 ft3
	2956.8 cy
Capo	excavation
3648	76608 ft3
	2837.333 cy
Talega	excavation
390	8190 ft3
222	4662 ft3
237	4977 ft3
477	10017 ft3
418	8778 ft3
total	36624 ft3
	1356.4 cy

Dist.	excavation
2700	56700 ft3
	2100 cy
TOTAL	10163.5 cy
excavation	
BACKFILL	4504.0 cy

Bore Pits	
excavation	
32400 ft3	
1200 cy	
backfill	
ducts (ft3)	1890
cy	70
total (cy)	1130

Capo UG length
1020
20.5
55.5
723
638
50
330
83
43
685
3648 total (feet)

Manhole Excavation				
L	W	H	Vol ft3	Vol yd3
	26	10	10	2600
				96.2963

Capo	3
WH	4
TA	5
Qty of MH=	12

Total Volume =	1155.556 yd3
Volume of Trench =	242.6667 yd3
	912.8889 yd3 of excavated material less amount accounted for in the trenching.

Conversion

ft3 to cy	0.037037037
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Assumptions and values

- Average trench dimensions are 7 feet deep and 3 feet wide.
- Assumed that approximately half of the trench depth will be used for the duct banks (and thus half of the excavated materials would be backfilled).
- Assume top foot of each trench is concrete/asphalt, where areas are currently paved. This includes Vista Montana and portions of the area west of Capo Substation site (trans. and dist. lines).
- Bore pits are 40 feet by 12 feet, and receiving pits are 20 feet by 12 feet. Depth for both is assumed to be 15 feet. It is assumed from preliminary engineering that 3 bore pits and 3 receiving pits will be required.
- Capo segment UG lengths from Nolte Drawings.
- Pole site cut and fill from Civil Engineering group.